

silicon-based structural component
(e.g. silane, siloxane, silsesquioxane, silicate)

Figure1. Generic anatomy of invention

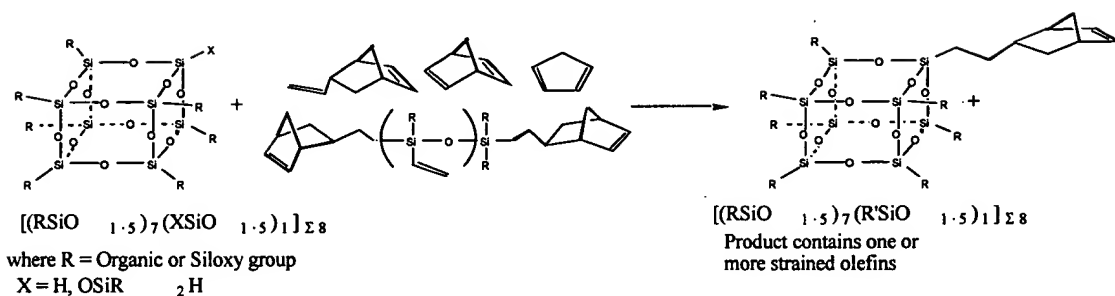


Figure 2: Hydrosilation method for attaching ROMP group. Only monohydrosilation is shown, polyhydrosilations can also be carried out.

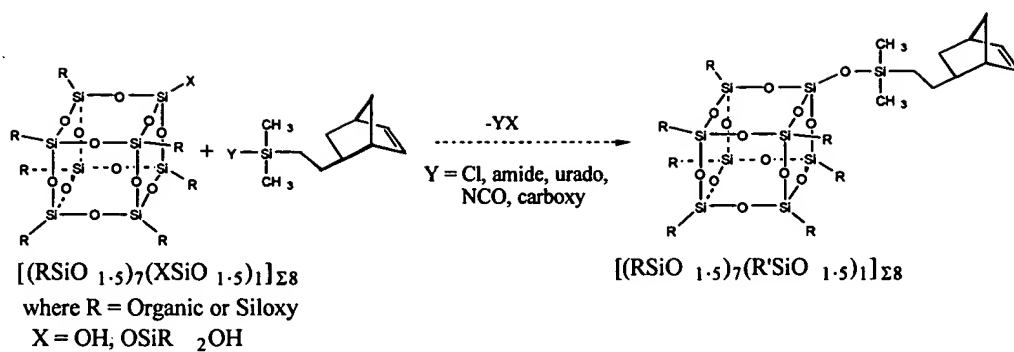


Figure 3. Silation method for attaching ROMP group. Monosilation was shown, polysilations can also be carried out.

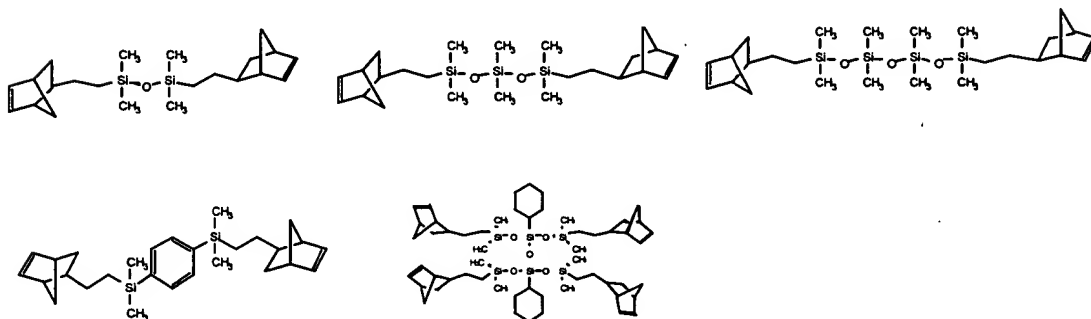


Figure 4. Representative examples of non-nanostructured oligomeric siloxane and silsesquioxane systems.

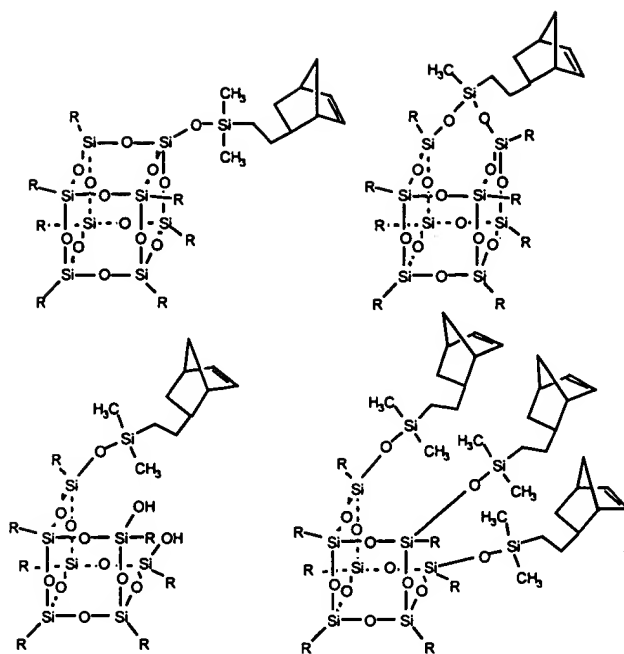


Figure 5. Examples of mono and tris functionalized POSS and POS nanostructure

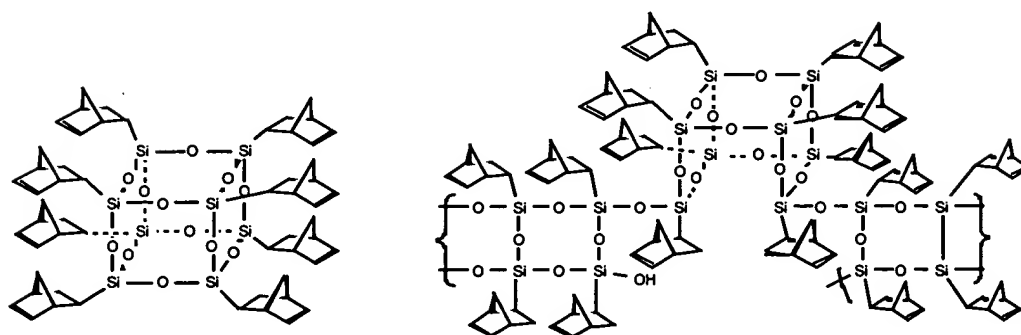


Figure 6. Examples of polyfunctionalized POSS, POS and Silsesquioxane resin systems.